

AMENDMENTS TO THE CLAIMS

Claims 1-31 were pending at the time of the 3/2/05 final office action.

Claims 1, 7, 17, 19, 24, 26, and 28 are amended in this response.

Claims 2, 8, 18, 25, and 29 are cancelled in this response without
5 prejudice.

Claims 1, 3-7, 9-17, 19-24, 26-28, and 30-31 are pending as a result of
this response.

1. (Currently amended) A disk drive system having an array controller
10 that receives a write command from a host, comprising:

a write stack drive to receive said write command and to store write
operations within said write command with write stack operations on a non-
volatile cache memory which acts as a stack memory; and

a normal drive to receive said write command and to execute said write
15 operations within said write command.

2. (Cancelled).

3. (Original) The disk drive system of claim 1, wherein said write
20 command stores data in a storage media.

4. (Original) The disk drive system of claim 1, wherein said non-volatile
cache memory comprises a plurality of tracks.

5. (Original) The disk drive system of claim 1, wherein said write stack drive sends a complete command when said write stack operations are completed.

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6. (Original) The disk drive system of claim 1, wherein said write stack drive comprises metadata to reflect data within said write stack drive.

7. (Currently amended) A disk drive that executes write commands on a storage media coupled to a normal drive, comprising:

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a write stack drive comprising a non-volatile cache stack memory having a plurality of tracks, wherein said plurality of tracks store data from write stack operations for said write commands; and

a metadata file to identify the data stored within said write stack drive.

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8. (Cancelled).

9. (Original) The disk drive of claim 7, wherein said write stack drive mirrors said normal drive.

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10. (Original) The disk drive: of claim 7, further comprising a marker sector for each write stack operation stored within said write stack drive.

11. (Original) The disk drive of claim 10, wherein said marker sector includes a valid data flag.

5 12. (Original) The disk drive of claim 7, wherein said write commands are received from an array controller coupled to said disk drive.

13. (Original) A system for executing a write command, comprising:
an array controller coupled to a disk drive;

10 a write stack drive within said disk drive to receive said write command, wherein said write stack drive comprises a non-volatile cache stack memory to perform write stack operations for said write command;

a metadata file to indicate data within, said stack memory; and

a normal drive within said disk drive to execute write operations for
15 said write command.

14. (Original) The system of claim 13, wherein said stack memory comprises line tracks.

20 15. (Original) The system of claim 13, further comprising a host to initiate said write command to said array controller.

16. (Original) The system of claim 13, wherein said write stack operations

include marker sectors.

17. (Currently amended) A method for executing a write command using a disk drive, comprising:

- 5 receiving said write command at a write stack drive;
- performing write stack operations for write operations within said write command on a non-volatile cache memory within said write stack drive; ~~and~~
- executing said write operations within a normal drive with data stored in said write stack operations; and,
- 10 responding with a command complete upon completion of said write stack operations.

18. (Cancelled).

- 15 19. (Currently amended) The method of claim ~~18~~ 17, wherein said responding comprises sending said command from said write stack.

20. (Original) The method of claim 17, further comprising receiving said write command from an array controller.

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21. (Original) The method of claim 17, further comprising updating a metadata file when said write stack operations are performed.

22. (Original) The method of claim 17, wherein said performing comprises writing data from said write command to a line track within said cache memory.

5 23. (Original) The method of claim 22, further comprising positioning a pointer to another track when said writing is completed.

24. (Currently amended) A method for writing data to a disk drive, comprising:

10 receiving a write command at an array controller;
receiving said write command at a write stack: drive from said array controller;

performing write stack operations for said write command on a non--volatile cache memory with said write stack drive, wherein said write stack
15 operations store said data on tracks of said non-volatile cache memory;

receiving said write command at a normal drive;
executing write operations at said normal drive with said data; and
indicating from said write stack drive to said array controller that said
write command is complete.

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25. (Cancelled).

26. (Currently amended) The method of clam 24, further comprising

positioning ~~said~~ a line track within said write stack drive.

27. (Original) The method of claim 24, further comprising updating a metadata file that indicates current data within said write stack drive.

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28. (Currently amended) A method for writing data to a normal drive within a disk drive,
comprising:

receiving said data at a write stack drive;

10 performing a write stack operation to store said data within a non--volatile cache memory within said write stack drive; ~~and~~

sending said data to said normal drive; and,

committing said data to an LRU cache.

15 29. (Cancelled).

30. (Original) The method of claim 28, further comprising executing said write command at said normal drive.

20 31. (Original) The method of claim 28, further comprising receiving said data at said normal drive.